

Deposition of stable silver nanoparticles encapsulated in solid nanospheres from poly (vinyl)-N-pyrrolidone/Ag stable colloids

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Stable coatings of spherical poly(vinyl)-N-pyrrolidone (PVP)-coated silver nanoparticle layers were obtained using spin coating and rapid thermal processing of PVP/Ag nanoparticle composite thin films on optical glass substrates and this simple method extended to the deposition on optical substrates of solid spheres encapsulating silver nanoshapes, by slow heating of the solution of Ag-encapsulating nanospheres to temperatures above 120 °C.